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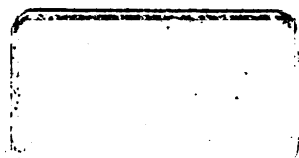
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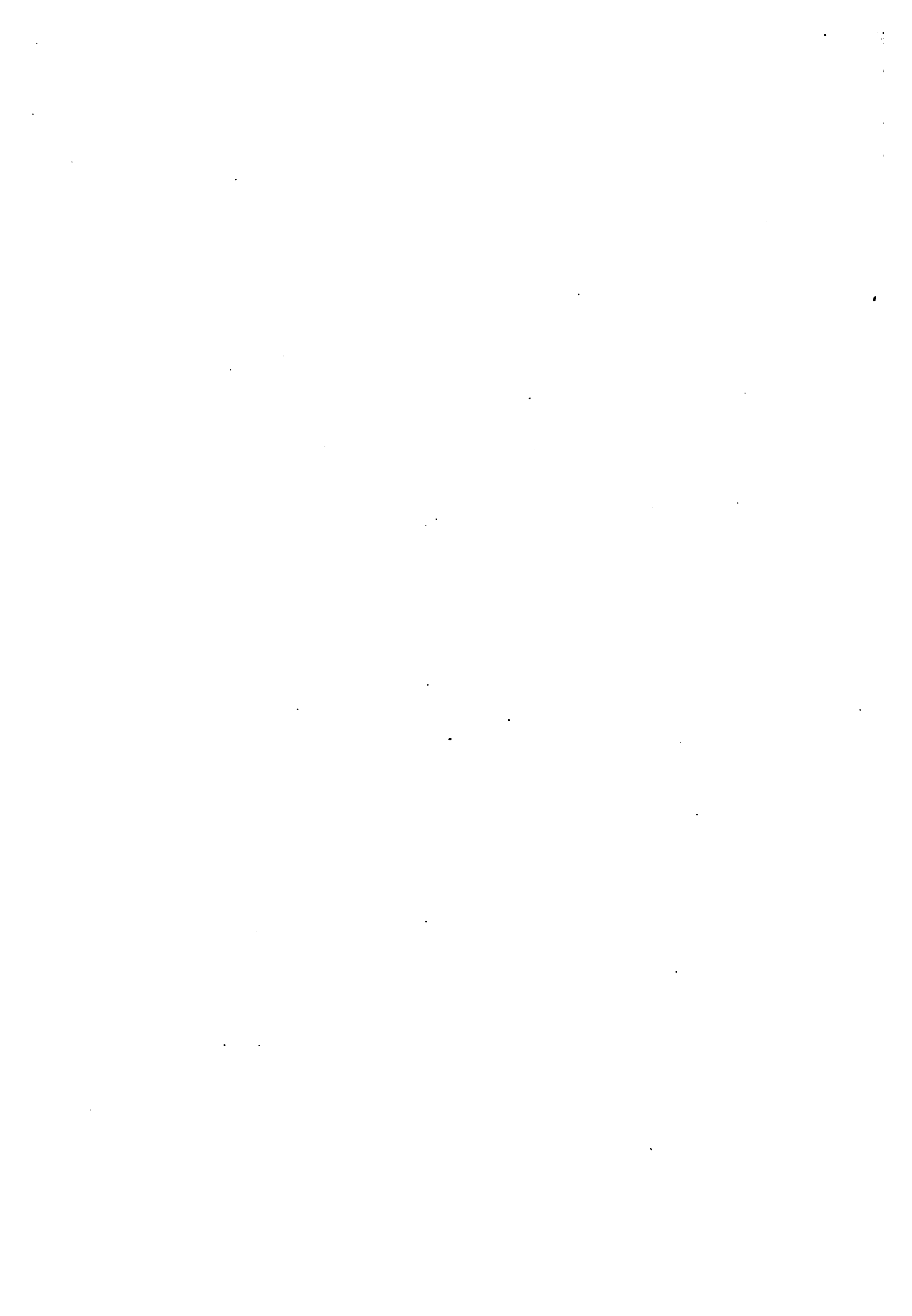
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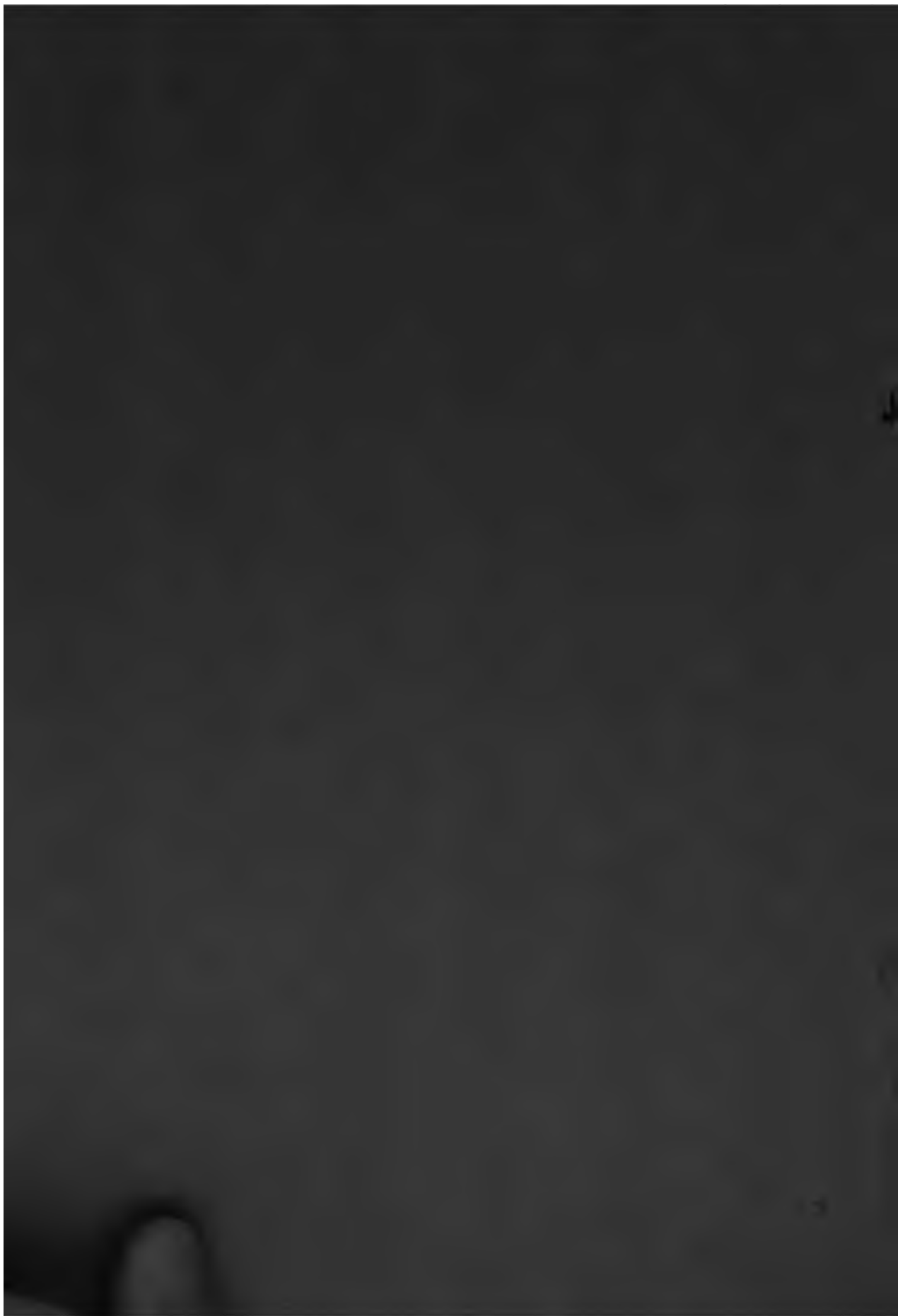
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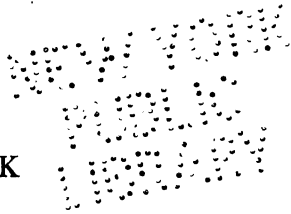
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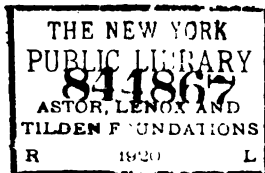
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TORPEDOES

A LIST OF REFERENCES TO MATERIAL IN THE NEW YORK PUBLIC LIBRARY

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GENERAL

1. **Harvey torpedo.** (Engineering, London, v. 9, 1870, p. 180, 241; v. 11, 1871, p. 35-36, 124; v. 13, 1872, p. 352, 412; v. 14, 1872, p. 262; v. 24, 1877, p. 391-392.) **VDA**
Invention of John Harvey.
2. **The Lay torpedo.** (Army and navy journal, New York, v. 13, 1875, p. 182, 293, 595, 610, 674; v. 14, 1876, p. 766, 783, 802; v. 15, 1877, p. 15; v. 16, 1879, p. 657; v. 20, 1883, p. 737, 995; v. 25, 1887, p. 697.)
†† **VWA**
3. **Notes on torpedoes.** (Army and navy journal, New York, v. 7, 1869-70, p. 261, 325, 560, 628-629, 733; v. 8, 1870, p. 94; v. 9, 1871-72, p. 82, 106, 817; v. 10, 1872-73, p. 110, 537, 654, 730, 802, 811; v. 11, 1873-74, p. 126, 206, 222, 230, 254, 297, 313, 342, 358, 392, 446, 456-457, 505, 523; v. 12, 1874-75, p. 200, 284, 473, 506; v. 14, 1876-77, p. 283, 799, 823; v. 15, 1877, p. 254, 285, 327; v. 16, 1878, p. 86, 87, 103; v. 19, 1882, p. 501; v. 20, 1882-83, p. 263, 873; v. 21, 1884, p. 813; v. 23, 1886, p. 500, 619, 682, 873, 1015; v. 24, 1886, p. 75, 440; v. 25, 1888, p. 515; v. 28, 1891, p. 754, 875; v. 29, 1891-92, p. 254, 434, 477, 513; v. 30, 1893, p. 545; v. 31, 1893, p. 43; v. 32, 1894-95, p. 85, 115, 162, 207, 405; v. 33, 1896, p. 657; v. 36, 1899, p. 449; v. 41, 1904, p. 775, 1071; v. 42, 1904-05, p. 128, 256, 392, 477, 771, 1267, 1327; v. 43, 1905, p. 147; v. 45, 1908, p. 996; v. 46, 1908-09, p. 140, 572, 583; v. 48, 1910-11, p. 119, 187, 1512; v. 50, 1913, p. 1309; v. 52, 1914-15, p. 263, 364, 427, 776, 871, 1133, 1229, 1361, 1393, 1624, 1649.)
†† **VWA**
4. **Notes on torpedoes.** (Engineer, London, v. 45, 1878, p. 171, 402; v. 84, 1897, p. 423; v. 95, 1903, p. 40, 471; v. 105, 1908, p. 665; v. 107, 1909, p. 428; v. 109, 1910, p. 40, 66, 196, 348, 472, 573; v. 110, p. 197.) **VA**
5. **Notes on torpedoes.** (Engineering, London, v. 8, 1869, p. 227; v. 10, 1870, p. 286, 473; v. 11, 1871, p. 321, 394, 463; v. 12, 1871, p. 30, 114, 155, 322; v. 14, 1872, p. 34, 366; v. 17, 1874, p. 114, 400, 447; v. 25, 1878, p. 64, 179, 388; v. 28, 1879, p. 36, 177; v. 29, 1880, p. 127, 498; v. 30, 1880, p. 272, 296, 322; v. 31, 1881, p. 434, 486; v. 33, 1882, p. 142, 218, 297; v. 36, 1883, p. 92, 543; v. 43, 1887, p. 234, 369; v. 50, 1890, p. 532; v. 51, 1891, p. 344; v. 55, 1893, p. 165, 223, 625; v. 70, 1900, p. 5; v. 74, 1902, p. 147, 610, 674; v. 76, 1903, p. 353.)
VDA
6. **Notes on torpedoes.** (Institution of Naval Architects, Transactions, London, v. 13, 1872, p. 42, 258; v. 23, 1882, p. 9; v. 29, 1888, p. 184-187, 191; v. 32, 1891, p. 12, 21, 30-31; v. 36, 1895, p. 183; v. 52, 1910, p. 7.)
VXA
7. **Notes on torpedoes.** (Marine engineer, London, v. 10, 1888, p. 203; v. 13, 1891, p. 447; v. 17, 1895, p. 197; v. 18, 1896, p. 205; v. 19, 1897, p. 14, 96, 223; v. 20, 1898, p. 68; v. 24, 1903, p. 433; v. 25, 1903, p. 330; v. 26, 1904, p. 256; v. 31, 1908, p. 39.)
VXA
8. **Notes on torpedoes.** (Scientific American, New York, v. 10, 1863, p. 362; v. 50, 1884, p. 49; v. 52, p. 276; v. 53, p. 19, 50, 149, 342; v. 54, p. 73, 117, 166; v. 55, p. 48, 88, 280, 336-337, 387; v. 56, p. 25, 185, 309, 370, 389; v. 57, p. 114; v. 58, p. 2, 33, 243, 376; v. 59, p. 311, 358; v. 60, p. 183, 228, 324; v. 61, p. 32, 102, 135, 178; v. 62, p. 182, 185; v. 64, p. 9, 374; v. 65, p. 161-162, 273; v. 66, p. 147, 164, 184; v. 67, p. 323; v. 68, p. 23, 262; v. 69, p. 137, 261, 323, 354-355, 387; v. 70, p. 21, 230; v. 71, p. 44, 164, 213, 263, 310, 354, 375-376; v. 72, p. 108, 178, 184, 251, 261; v. 73, p. 185, 364, 377; v. 74, p. 83; v. 76, 1897, p. 99; v. 77, 1897, p. 376; v. 79, 1898, p. 76, 211; v. 80, 1899, p. 92, 244-245; v. 81, 1899, p. 358; v. 82, 1900, p. 35, 151, 247; v. 83, 1900, p. 52, 151, 194, 244; v. 85, 1901, p. 119, 166; v. 86, 1902, p. 60, 84, 94, 204; v. 87, 1902, p. 124, 290, 443; v. 88, 1903, p. 238, 374; v. 89, 1903, p. 190; v. 90, 1904, p. 40, 271; v. 91, 1904, p. 244, 461; v. 94, 1906, p. 286; v. 97, 1907, p. 413; v. 101, 1909, p. 313; v. 109, 1913, p. 278; v. 112, 1915, p. 117; v. 114, 1916, p. 95, 575.)
VA
9. **Notes on torpedoes.** (Scientific American supplement, New York, v. 1, 1876, p. 453; v. 6, 1878, p. 2193, 2208-2209, 2223, 2301, 2462.)
VA
10. **Notes on torpedoes.** (United States Naval Institute, Proceedings, Annapolis, v. 27, 1901, p. 436-437, 839-840; v. 28, 1902, p. 162-163, 439; v. 30, 1904, p. 882-883; v. 31, 1905, p. 727-730, 1014; v. 32, 1906, p. 1606-

General, continued.

1607; v. 33, 1907, p. 418, 875-876; v. 34, 1908, p. 1338; v. 35, 1909, p. 309, 985; v. 36, 1910, p. 625, 903; v. 38, 1912, p. 345; v. 39, 1913, p. 395, 872, 1357; v. 40, 1914, p. 1192, 1508, 1821; v. 42, 1916, p. 268, 967.)

VXA

11. **Torpedo experiments.** (Engineering, London, v. 18, 1875, p. 126, 165, 269, 439; v. 19, 1876, p. 214, 354, 500; v. 21, 1878, p. 185; v. 22, 1879, p. 367-368; v. 29, 1886, p. 462; v. 32, 1889, p. 93-94, 116; v. 39, 1896, p. 143-145, 636; v. 40, 1897, p. 258, 475; v. 41, 1898, p. 256; v. 42, 1899, p. 478.)

VDA

12. **Torpedo experiments in England.** (Army and navy journal, New York, v. 12, 1874-75, p. 41, 104, 110, 186, 206, 265, 270-271, 318, 327, 334, 715-716; v. 13, 1875-76, p. 22, 30, 755; v. 14, 1877, p. 383; v. 15, 1877-78, p. 79, 546; v. 17, 1879, p. 266; v. 19, 1881, p. 35; v. 20, 1882, p. 979; v. 24, 1887, p. 925, 939-940; v. 25, 1888, p. 905.)

†† VWA

13. **Torpedo experiments and practice** (United States). (Army and navy journal, New York, v. 11, 1873, p. 30, 167, 375; v. 12, 1874, p. 23, 58-59; v. 13, 1875, p. 74; v. 15, 1877, p. 135; v. 16, 1878, p. 7, 253; v. 20, 1882, p. 422; v. 24, 1886, p. 156; v. 49, 1911-12, p. 43, 1599; v. 52, 1914-15, p. 265, 1002, 1532.)

†† VWA

14. **Torpedoes or submarine explosive instruments.** (Engineer, London, v. 22, 1866, p. 168; v. 23, 1867, p. 242; v. 31, 1871, p. 49; v. 34, 1872, p. 78.)

VA

Invention of C. A. McEvoy of London.

15. **The Whitehead torpedo.** (Army and navy journal, New York, v. 13, 1876, p. 650, 679, 746; v. 14, 1876, p. 142; v. 15, 1877, p. 79, 299; v. 17, 1879, p. 143, 586, 607; v. 18, 1881, p. 747, 774, 1077; v. 21, 1883, p. 341.)

†† VWA

1630

16. **Hanzelet, Jean Appier, called.** *La pyrotechnie de Hanzelet, Lorrain, ou sont representez les plus rares & plus appreneuez secrets des machines & des feux artificiels. Propres pour assieger battre surprendre & deffendre toutes places. Pont à Mousson: I. & Gaspard Bernard, 1630. 4 p.l., 264 p. 8°.*

VOG

This work contains interesting data on floating and land mines, bombs, rockets, and artificial fire for lighting battlefields, etc.

1641

17. **Collado, Luys.** *Prattica manvale dell' artiglieria. Opera historica, politica, e militare.* Milano: Filippo Ghisolfi & Gio. Battista Bidelli, 1641. 8 p.l., 328 p. illus. 4°.

† VWW

1644

18. **Mersenne, Marin.** *De nauibus sub aqua natantibus.* (In his: F. Marini Mersenni Minimi cogitata physico mathematica, in quibus tam naturæ quam artis effectus admirandi certissimis demonstrationibus explicantur, Paris, 1644 (part 1), p. 207-208.)

OKC

The author gives Cornelis Jacobsz Drebhel the credit of inventing the submarine.

1648

19. **Wilkins, John.** *Mathematicall magick. Or, The vvonders that may be performed by mechanicall geometry.* London: printed by M. F. for S. Gellibrand, 1648. 7 p.l., 295 p. illus. 16°.

PBC

Concerning the possibility of framing an ark for submarine navigations. The difficulties and conveniences of such a contrivance, p. 178-190.

1650

20. **Siemienowicz, Kazimierz.** *Artis magne artilleriæ. Pars prima...* Amsterodami: apud Joannem Janssonivm, 1650. 8 p.l., 284 p., 2 l., 22 pl. f°.

† VOG

Gives data on bombs, rockets, and floating mines.

1676

21. **Binning, Thomas.** *A light to the art of gunnery... either in sea or land-service ...* London: printed by J. D. for W. Fisher and R. Mount, 1676. 8 p.l., 3-172 p., 4 charts, 3 pl. 4°.

VWW

Gives receipts for making petards, grenades, fire arrows, rockets, fire trunks, fire barrels, and mines; also receipts for the illumination of trenches and battlefields.

1699

22. **Fernandez de Medrano, Sebastian.** *El perfecto artificial, bombardero y artillero, que contiene los artificios de fuegos marciales, nuevo uzo de bombas, granadas, y practica de la artilleria, y mosquete, &c.* Brusselas: L. Marchant, 1699. 8 p.l., 196 p., 2 l., 10 pl. 16° in eights.

VOG

Notes on bombs, rockets, and grenades.

1745

23. **Orval, Perrinet d'.** *Essay sur les feux d'artifice pour le spectacle et pour la guerre.* Par Mr. P. d'O. (i. e., Perrinet d'Orval,) Paris, 1745. xii p., 2 l., 224 p., 13 pl. 12° in eights.

VOG

Notes on rockets and mines.

1762

24. **La Machine infernale.** (Recueil de planches, sur les sciences, les arts libéraux, et les arts mécaniques, avec leur explication, Paris, 1762, v. 1, Art militaire, Fortification, planche 11, fig. 6.) †† * **AP**

1764

25. **Bélicor, Bernard Forest de.** Oeuvres diverses de M. Belidor, concernant l'artillerie et le génie. Amsterdam: Arkstée & Merkus, 1764. 1 p.l., xxxix, 396 p., 7 pl. 8°.

VWW

For descriptions of mines see p. 94-191, 320-391; for descriptions of bombs, p. 238-319.

1776

26. **Bélicor, Bernard Forest de.** M. Belidor's new method of mining. (In: Robert Jones, Artificial fireworks, London, 1776, p. 157-178.) **VOG**

27. **Jones, Robert.** Artificial fireworks, improved to the modern practice, from the minutest to the highest branches... Also, Mr. Muller's Fireworks, for sea and land service... London: J. Millan, 1776. 3 p.l., 193 p., 8 pl. 2. ed. 8°.

VOG

28. **Vallière, Jean Florent, marquis de.** Dissertation on mines, and their advantages in the defence of places. (In: Robert Jones, Artificial fireworks, London, 1776, p. 178-186.) **VOG**

18— ?

29. **Torka, Johann.** [Seeminen.] (In his: Die Wunder der Technik, Berlin [18—?], p. 446, 451.) **V**

30. — [Torpedos.] (In his: Die Wunder der Technik, Berlin [18—?], p. 450-460.) **V**

1810

31. **Fulton, Robert.** Torpedo war, and submarine explosions. New York: printed by William Elliot, 1810. 57(1) p., 1 l., 5 pl. ob. 8°.

Reserve

32. — — New York: printed by W. Elliot, 1810. New York: Reprinted, W. Abbott, 1914. 55 p., 5 pl. 4°. (Magazine of history with notes and queries. Extra number. no. 35.) **IAG (Magazine)**

The original pamphlet was reviewed in the *Proceedings of the United States Naval Institute*, Annapolis, Md., v. 12, 1886, p. 252-254, *VXA*.

33. **Sur les moyens proposés par Robert Fulton, pour la destruction des vaisseaux de guerre et la défense des ports et des rades.** illus. (Société d'encouragement pour l'industrie nationale, Bulletin, Paris, année 9, 1810, p. 170-182.) **VA**

Detailed description of Fulton's torpedo.

33a. **Use of the torpedo in the defence of ports and harbors; communicated to the Senate, February 26, 1810.** 11th Congress, 2d session. illus. (In: American state papers, Washington, 1834, v. 14, Naval affairs, v. 1, p. 211-226.) * **SBE**

1811

33b. **Experiments on the practical use of the torpedo, communicated to the House of Representatives, February 14, 1811.** 11th Congress, 3d session. illus. (In: American state papers, Washington, 1834, v. 14, Naval affairs, v. 1, p. 234-244.) * **SBE**

1820

34. **Griswold, Charles.** Submarine navigation. (American journal of science and arts, New Haven, v. 2, 1820, p. 94-100.) **OA**

Gives account of David Bushnell's submarine or torpedo and the attack on the British fleet in New York harbor, August, 1776, by Ezra Lee.

1825

35. **Cutbush, James.** Of the American turtle. (In his: System of pyrotechny, Philadelphia, 1825, p. 515-521.) **VOG**

Gives a very interesting account of David Bushnell's submarine or torpedo and the attack on the British fleet in New York harbor in August, 1776.

36. — Of the combustible substances used in, and the manner of preparing a fire-ship. (In his: System of pyrotechny, Philadelphia, 1825, p. 507-512.) **VOG**

37. — Of the torpedo. Of the marine incendiary kegs, etc. (In his: System of pyrotechny, Philadelphia, 1825, p. 521-525.) **VOG**

Notes on Fulton's torpedo. Attempt of a Mr. Mix to destroy the "Plantagenet" in Lynnhaven harbor in July, 1813; also attempt of a Mr. Penny of Easthampton, Long Island, to destroy a British battleship.

38. **Montgéry, de.** Notice sur la vie et les travaux de Robert Fulton. Paris: Bachelier, 1825. 1 p.l., 70 p. 8°. **AN p.v.26, no.19**

Includes notes on torpedoes.

39. — **Traité des fusées de guerre, nommées autrefois rochettes et maintenant fusées à la Congrève.** Paris: Bachelier, 1825. 2 p.l., 364 p., 6 diags. 8°. **VWS**

Gives data on submarines and torpedoes.

1825, *continued.*

40. **Worcester** (2. marquis), Edward Somerset. [Torpedoes.] (In his: The century of inventions of the marquis of Worcester, London, 1825, p. 12-14.) **V**

Description of a bomb or torpedo for sinking ships; also methods of protecting ships from torpedoes.

1840

41. **Memorial** of a committee of the military convention at Norwich, Vermont, praying the revision and alteration of the system of the military defences of the United States. Feb. 24, 1840. [Washington, 1840.] 26 p. 8°. (U. S. 26. cong., 1. sess. Sen. doc. 238; serial 358.) ***SBE**

This memorial prepared by Captain Alden Partridge, president of Norwich University, gives valuable suggestions for the training of the "citizen soldiery" applicable at this time; also data on the use of the fireship and of Greek fire; also an interesting description of the fireship invented by Uriah Brown. The proposed ship, seventy-five feet long, was to be so constructed as to float low in the water. Its sides and decks were to be protected by heavy iron plates set at such angles that no shot fired at it could strike at a greater angle than 15 degrees, thus causing the shots to ricochet without penetrating the deck or sides. The chief use of the boat was the firing of a liquid composition through tubes passing through orifices in the deck which on coming in contact with the air would instantly take fire.

1862

42. **Collier**, Francis J. Magnetic torpedoes. (Scientific American, New York, new series, v. 6, 1862, p. 230.) **VA**

Brief note.

43. **Holman**, H. R. Harbor defence-torpedoes. (Scientific American, New York, new series, v. 6, 1862, p. 38.) **VA**

Brief note.

44. **Submarine** infernal machine. illus. (Scientific American, New York, new series, v. 5, 1862, p. 101.) **VA**

Torpedo work on the Potomac river.

45. **Submarine** torpedoes—infernal machines. illus. (Scientific American, New York, new series, v. 6, 1862, p. 164-165.) **VA**

Notes on the work of Robert Fulton and Lord Cochrane.

1863

46. **Demijohn** torpedoes. (Scientific American, New York, new series, v. 8, 1863, p. 19.) **VA**

Abstracted from the *Pittsburgh dispatch*.

47. **Destruction** of the U. S. S. "Housatonic" by a torpedo. (Scientific American, New York, new series, v. 10, 1863, p. 165.) **VA**

48. **Explosion** of a submarine torpedo. (Scientific American, New York, new series, v. 8, 1863, p. 7.) **VA**

Destruction of the U. S. S. Cairo, Dec. 11, 1862.

49. The "**Monitor**" torpedo. (Scientific American, New York, new series, v. 9, 1863, p. 56.) **VA**

50. A **New** rebel torpedo. illus. (Scientific American, new series, v. 9, 1863, p. 388.) **VA**

Report of William N. Jeffers on test.

51. The **New** torpedo in Charleston harbor. illus. (Scientific American, New York, new series, v. 9, 1863, p. 164, 229.) **VA**

1864

52. **Doty**. On the torpedoes used by the Confederate States in the destruction of some of the Federal ships of war, and the mode of attaching them to the rams. (British Association for the Advancement of Science, Report, Bath, 1864, Notices and abstracts, p. 185-186.) ***EC**

Also abstracted in *Army and navy journal*, New York, v. 2, 1864, p. 138-139, †† *VWA*.

53. **Experiment** with torpedoes. (Engineer, London, v. 18, 1864, p. 146.) **VA**

Experiment in the Scheldt near Antwerp.

54. **New** rebel torpedo. illus. (Scientific American, New York, new series, v. 11, 1864, p. 228.) **VA**

55. **New** torpedo. illus. (Engineer, London, v. 18, 1864, p. 254.) **VA**

Invention made at Richmond, Va. Abstracted from *Scientific American*.

56. The **Rebel** torpedoes. illus. (Scientific American, New York, new series, v. 10, 1864, p. 390.) **VA**

57. **Torpedo** planting by the Confederates. (Army and navy journal, New York, v. 1, 1864, p. 653.) †† **VWA**

58. **Torpedoes**. (Engineer, London, v. 18, 1864, p. 194.) **VA**

Notes on invention used in Confederate navy.

59. **Torpedoes** used by the rebels. illus. (Scientific American, New York, new series, v. 11, 1864, p. 21.) **VA**

1865

60. **American** torpedoes in England. (Scientific American, New York, new series, v. 13, 1865, p. 350.) **VA**

Invention of W. Beardslee.

1865, *continued*.

61. **Comstock, C. B.** [Use of land torpedoes by the Confederates at Fort Fisher.] illus. (War of the rebellion: a compilation of the official records of the Union and Confederate armies, Washington, 1895, series 1, v. 46, part 2, p. 215-217.) **IKC**

Letter to General R. Delafield.

62. **The Electrical torpedo.** (Scientific American, New York, new series, v. 13, 1865, p. 113.) **VA**

Note on the work of Nathaniel J. Holmes in England.

63. **A New torpedo.** (Engineer, London, v. 19, 1865, p. 253.) **VA**

Brief note on invention by a Swedish engineer.

64. **Rye, William Brenchley.** England as seen by foreigners in the days of Elizabeth and James the First. Comprising translations of the journals of the two dukes of Wirtemberg in 1592 and 1610. London: J. R. Smith, 1865. cxxxii p., 1 l., 3-300 p., 5 pl., 2 ports. 8°. **CN**

Has a reference to Cornelius Drebbel on p. 61, and an extensive biographical account of his activities on p. 232-242.

65. **Torpedo invented by Donald McKay.** (Army and navy journal, New York, v. 3, 1865, p. 89.) **†† VWA**

66. **Torpedo invented by G. Davies, London.** (Engineer, London, v. 19, 1865, p. 159.) **VA**

67. **The Torpedo ship.** (Scientific American, New York, new series, v. 12, 1865, p. 39.) **VA**

Brief note.

68. **Torpedoes.** (Army and navy journal, New York, v. 3, 1865, p. 728-729.) **†† VWA**
A new type of torpedo used in France.

1866

69. **History of a torpedo boat.** (Army and navy journal, New York, v. 3, 1866, p. 562; v. 4, 1866, p. 18.) **†† VWA**

Note on Confederate boat constructed at Mobile.

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81. **Hamilton, John Randolph.** The American navy; its organization, ships, armaments and recent experiences. (Royal United Service Institution, Journal, London, v. 12, 1869, p. 243-271.) **VWA**

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82. **Jervois, W. F. Drummond.** Coast defences, and the application of iron to fortification. illus. (Royal United Service Institution, Journal, London, v. 12, 1869, p. 548-569.) **VWA**

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83. **Patents on torpedoes issued to Frederick N. Gisborne of London.** (Engineer, London, v. 27, 1869, p. 58; v. 28, 1869, p. 44.) **VA**

84. **Torpedoes.** (Van Nostrand's engineering magazine, New York, v. 1, 1869, p. 632-635.) **VDA**

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85. **Torpedoes in war.** (Army and navy journal, New York, v. 6, 1868, p. 35, 534, 600, 788.) **†† VWA**

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87. **Captain Harvey's torpedo.** (Van Nostrand's engineering magazine, New York, v. 3, 1870, p. 657-658.) **VDA**
88. **Fishing up torpedoes.** (Engineer, London, v. 30, 1870, p. 343.) **VA**
Plan proposed by C. W. Merrifield.
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99. **The Fish torpedo.** (Engineer, London, v. 32, 1871, p. 381.) **VA**
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Experiments conducted by Gen. Humphreys.
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A series of experiments.

148. **A Torpedo detector.** (Engineer, London, v. 37, 1874, p. 148.) VA

Notes on the Wilde electro-magnetic induction machine.

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1875, *continued.*

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164. **The Oberon submarine mine experiments.** *illus.* (Engineer, London, v. 39, 1875, p. 361.) **VA**

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166. **Torpedo ship "Vesuvius."** *illus.* (Engineering, London, v. 19, 1875, p. 375-376.) **VA**

167. **Woolley, A. Sedgwick.** On spar torpedo warfare. (Institution of Naval Architects, Transactions, London, v. 16, 1875, p. 147-154.) **VXA**

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170. **Barnaby, N.** On ships of war. *illus.* (Institution of Naval Architects, Transactions, London, v. 17, 1876, p. 1-12.) **VXA**

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171. **Bradford, Royal Bird.** Suggestions on torpedo outfits of the vessels of the navy. Report on the torpedo fittings of the U. S. S. Intrepid. Washington: Gov. Prtg. Off., 1876. 21 p., 4 pl. 8°. (United States.—Ordnance Office, Navy Department.) **VXM p.v.2, no. 3**

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Brief note.

174. **Locomotive torpedoes.** (Engineer, London, v. 42, 1876, p. 259.) **VA**

175. **Notes on torpedoes: charge cases.** *illus.* (Engineering, London, v. 22, 1876, p. 67-68.) **VDA**

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178. **Recent trial of the Lay torpedo.** *illus.* (Scientific American supplement, v. 1, 1876, p. 337.) **VA**

179. **Signalling and firing apparatus (for torpedoes).** *illus.* (Engineering, London, v. 22, 1876, p. 303-304, 306.) **VDA**

180. **Torpedo accidents (at Woolwich and Portsmouth).** (Engineer, London, v. 41, 1876, p. 472, 484.) **VA**

181. **Torpedo steam launches.** (Engineering, London, v. 19, 1875, p. 165-166, 366-368; v. 20, 1875, p. 236.) **VDA**

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183. **Torpedoes at the International Exhibition, Philadelphia.** (Engineering, London, v. 23, 1877, p. 54-55.) **VDA**

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188. **Basarow, A.** Vorlesungsversuch über Torpedos. (Deutsche chemische Gesellschaft, Berichte, Berlin, Jahrg. 10, 1877, p. 25-26.) **PKA**

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190. **Donaldson, John.** The Thornycroft torpedo-vessels; their construction, armament, etc., and the results of certain experiments that have been made with them. (Royal United Service Institution, Journal, London, v. 21, 1877, p. 611-632.) **VXA**
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193. **Electric fuses, jointers, signalling, etc., for torpedoes.** illus. (Engineering, London, v. 24, 1877, p. 219-220.) **VDA**
194. **Electro-contact torpedoes.** illus. (Engineering, London, v. 23, 1877, p. 157-158.) **VDA**
195. **Electro-mechanical torpedoes.** illus. (Engineering, London, v. 23, 1877, p. 214-215, 455-456.) **VDA**
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196. **The English torpedo system.** (Army and navy journal, New York, v. 14, 1877, p. 646-647.) **†† VWA**
197. **Ferris, John.** Notes on the removal of the hull of the ship "Forest" by extempore torpedoes. illus. (Royal United Service Institution, Journal, London, v. 21, 1877, p. 1133-1134.) **VWA**
198. **Gakuma, G.** Torpedoes. (Scientific American, New York, new series, v. 36, 1877, p. 337.) **VA**
199. **Gun, ram and torpedo.** (Army and navy journal, New York, v. 14, 1877, p. 834.) **†† VWA**
200. **Manufacture of the Harvey torpedo.** illus. (Scientific American, New York, new series, v. 36, p. 402.) **VA**
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202. **Moisson.** Des explosions au sein de l'eau. (Revue maritime et coloniale, Paris, v. 52, 1877, p. 744-770; v. 53, 1877, p. 86-120.) **VXA**
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206. **Russian torpedoes.** (Engineering, London, v. 24, 1877, p. 19.) **VDA**
207. **Scott, Michael.** On improved ships of war and their defence against torpedoes. (Institution of Naval Architects, Transactions, London, v. 18, 1877, p. 37-49.) **VXA**
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209. **Stone, Charles A.** A general description of the ordnance and torpedo outfit of the U. S. S. "Trenton." (United States Naval Institute, Proceedings, Annapolis, v. 3, 1877, p. 89-93.) **VXA**
210. **Torpedo armament of various wars.** (Royal United Service Institution, Journal, London, v. 21, 1877, p. 1137-1144.) **VWA**
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276. ~~See also 275~~
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1109. The New torpedo battery at Léoube bay. (The Navy, Washington, v. 3, June, 1909, p. 37.) †VYE

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Brief note.

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1116. The Schneider torpedo-launching station. illus. (Scientific American, New York, v. 100, 1909, p. 222.) VA

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1139. **Charmoille.** La distance de lancement des torpilles automobiles. (Journal de la marine, le yacht, Paris, année 33, 1910, p. 369.) †† **VXF**

1140. **Dary, Georges.** Torpilles dirigeables. (Cosmos, Paris, nouv. série, tome 62, 1910, p. 438-439.) **VA**

1141. **Fournier, Lucien.** Canots et torpilles dirigeables par les ondes électriques. illus. (Cosmos, Paris, nouv. série, tome 62, 1910, p. 286-287.) **VA**

1142. — **Télémechanique sans fil: la torpille dirigeable Gabet.** illus. (Cosmos, Paris, nouv. série, tome 63, p. 37-40.) **VA**

1143. **Le Franc, A.** Nouvelles torpilles automobiles. (Moniteur de la flotte, Paris, année 57, no. 43, Oct. 23, 1910, p. 3.) †† **VYH**

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1147. **Ryan, L. S.** Mine commander's board. illus. (Journal of the United States artillery, Fort Monroe, v. 33, 1910, p. 33-37.) **VWA**

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1148. **Sueter, Murray Fraser.** Protection des navires contre les explosifs sous-marins. (Revue maritime, Paris, tome 184, 1910, p. 281-292.) **VXA**

Extracted from his *Evolution of the submarine boat, mine and torpedo*. Translated by M. Bizot.

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1149. **Chalon, Paul F.** Effets produits par les explosions sous-marines; Explosions sous-marines; Application des explosifs aux travaux sous-marins. (In his: Les explosifs modernes, Paris, 1911, p. 607-670.) **VOG**

Valuable data on torpedoes and submarine mines. Also consult the index.

1150. **Charmoille.** Les barrages. (Journal de la marine, le yacht, Paris, année 34, 1911, p. 737-738.) †† **VXF**

1151. La **Défense** contre les mines flottantes. illus. (Armée et marine, Paris, année 12, 1911, p. 444-445.) †† **VWA**

1152. **Efficiency of torpedoes.** (Army and navy journal, New York, v. 48, 1911, p. 1579.) †† **VWA**

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1154. **Fletcher, R. A.** Warships and their story, with coloured frontispiece by Charles Dixon. London: Cassell & Company, Ltd., 1911. xxii, 348 p., 81 pl. illus. 8°. **VXR**

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1157. — Les mines sous-marines. (Moniteur de la flotte, Paris, année 58, no. 41, Oct. 14, 1911, p. 3.) †† **VYH**

1158. — Le sous-marin mouilleur de mines. (Moniteur de la flotte, Paris, tome 58, no. 6, Feb. 11, 1911, p. 3.) †† **VYH**

1159. — Les torpilles à réchauffeur d'air. (Moniteur de la flotte, Paris, année 58, no. 15, April 15, 1911, p. 3.) †† **VYH**

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mobiles. illus. (Journal de la marine, le yacht, Paris, année 34, 1911, p. 716-717.)
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See index to Teil 5, p. 426, under *Minen- und Torpedowesen*.

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First United States government test of the torpedo invented by Cleland Davis, U. S. N.

1165. La Torpille de 533. (Moniteur de la flotte, Paris, année 58, no. 51, Dec. 23, 1911, p. 3.) †† VYH

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A very comprehensive article giving a description of Elia's automatic system and the twin mines of the Vickers-Bréquet system; also tests and apparatus for laying mines.

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1172. Firing submarine mines by wireless telegraphy. illus. (Scientific American, New York, v. 107, 1912, p. 101.) VA
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1452. **Proença, Nicanor J. de.** Em torno do submarino. (Revista maritima brasileira, Rio de Janeiro, v. 68, 1916, p. 221-224.) VXA
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1454. **Protection against submarine torpedo attack.** (New York Times, Feb. 6, 1916, part 5, p. 7, col. 1.) *D
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1497. **Torpedoplane invented by Rear-Admiral Fiske.** illus. (United States Naval Institute, Proceedings, Annapolis, v. 43, 1917, p. 1524-1526.) VXA

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1500. **Weaver, Erasmus Morgan.** Notes on military explosives. New York: John Wiley & Sons, Inc., 1917. viii, 382 p. 8°. VOG

Precautions to be observed in charging torpedoes and shell with high explosives, p. 241-242.

1501. **Woodhouse, Henry.** Textbook of naval aeronautics. With introduction by Rear Admiral Bradley A. Fiske. New York: The Century Co., 1917. 7 p.l., 3-288 p. illus. f°. † VDY

How the revolutionary Leavitt torpedo was developed, p. 14-15. The torpedoplane and its possibilities, Bradley A. Fiske, p. 16-19. Locating submerged mines with aircraft, p. 51-52.

SUPPLEMENT

1586

1502. Collado, Luys. Pratica manvale di artiglieria; nella quale si tratta della inuentione di essa, dell' ordine di condurla, & piantarla sotto à qualunque fortezza, fabbricar mine da far volar in alto le fortezze, spianar le montagne, diuertir l'acque ofensiue à i regni & prouincie, tirar co i pezzi in molti & diuersi modi, far fuochi artificiali; con altri bellissimoi secreti all' essercitio dell' artiglieria appartenenti. Nuouamente composta & data in luce dal Mag. Signor Lvgi Collado. In Venetia, Presso Pietro Dusinelli, 1586. 6 p.l., 92 f., 1 diagr. illus. f°. †VWW

1775

1503. Gale, Benjamin. [The American Turtle, built at Saybrook by David Bushnell,] (Connecticut Historical Society, Collections, Hartford, v. 2, 1870, p. 315-318, 322-323, 333-335.) IAA

Letters to Silas Deane, written from Killingworth, Conn., Nov. 9, 22, and Dec. 7, 1775, in which he gives a report on the progress made on "our machine," the "American Turtle," invented by David Bushnell. Gale also states that Dr. Franklin was consulted in regard to its construction, and gives a description of the submarine and explains the method of using the explosive.

1778

1504. Symons, J. [Report on David Bushnell's attempt to blow up the Cerberus,] (The Remembrancer; or, Impartial repository of public events for the year 1778, London, 1778, p. 90-92.) Reserve

Letter written by the commander of the *Cerberus* to Rear Admiral Sir Peter Parker, giving an account of the attempted destruction of his ship by Bushnell's "infernal machine."

Symons reports that the torpedo was taken from the water by four men in a small boat and through their "fatal curiosity" the mechanism was examined with the result that "it blew the boat into pieces, and set her in a flame, killed the three men that were in the stern; the fourth, who was standing forward, was blown into the water." From this survivor the description of the torpedo was secured and a model made, which was forwarded to Admiral Parker. Symons remarks that the "ingenuity of these people is singular in their secret modes of mischief."

This letter is abstracted in Thomas Clark, *Naval history of the United States*, Philadelphia, 1814, v. 1, p. 72-74, VYE.

1813

1505. Clark, Thomas. Sketches of the naval history of the United States. Philadelphia, 1813. 12°. VYE

Chap. 5, p. 39-41. The torpedo, or American Turtle.

1814

1506. Clark, Thomas. Naval history of the United States, from the commencement of the Revolutionary war to the present time. Philadelphia, 1814. 2 v. 2. ed. 12°. VYE v. 1, chap. 5, p. 63-74. D. Bushnell, inventor of the torpedo, &c.

Reprints letter written by Bushnell to Thomas Jefferson in October, 1787, giving a full account of his torpedo and submarine; also his experiments made with the design of firing shipping, and his attempt to destroy the *Cerberus*.

1815

1507. Notice sur les fusées incendiaries de Congrève; suivie de la description et de l'analyse qui en a été faite par M. d'Arcet. 1 pl. (Annales des arts et manufactures, Paris, 1815, tome 55, p. 52-76.) VA

Description and analysis of incendiary rockets. Notes their use at the battle of Leipzig.

1819

1508. Petitot, Claude Bernard. De la défaite et de la prise du Comte de Pembroc devant la Rochelle, par les flotes de France et d'Espagne dont la première étoit commandée par Ivain de Galles. (In his: Collection complète des mémoires... Paris, 1819. 8°. v. 5, p. 110-123.) DBA

Gives account of the use of fire ships at La Rochelle at the defeat of the Earl of Pembroke.

1845

1509. Reinaud, Joseph Toussaint, and ILDEPHONSE FAVÉ. Histoire de l'artillerie, 1^{re} partie. Du feu grégeois, des feux de guerre et des origines de la poudre à canon d'après des textes nouveaux. Paris: J. Dumaine, 1845. 2 p.l., 285 p., 1 l., 8°, and atlas of 17 pl., 4°. VWW

No more published.

1861

1510. A Rebel torpedo. illus. (Frank Leslie's illustrated newspaper, New York, v. 13, 1861, p. 352.) *DA

1865

1511. Die Hoellenmaschinen oder Torpedo's des neueren amerikanischen Krieges. (Dingler's polytechnisches Journal, Augsburg, Bd. 176, 1865, p. 107-109.) VA

1865, *continued.*

1512. **Sketch** of a torpedo picked up in Morganza Bend, Mississippi river, by the crew of the U. S. S. Lafayette. (Frank Leslie's illustrated newspaper, New York, v. 20, 1865, p. 189.) *DA

1868

1513. **Figuier, Louis.** Les poudres de guerre. (In his: Les merveilles de la science, Paris, tome 3, 1868, p. 209-308.) V

A very complete historical article, giving data on Greek fire, use of fire barrels on land and on ships, incendiary bombs, fire lances, and incendiary chariots. Greek fire used at the siege of Constantinople in 1453.

1870

1514. **John Ericsson's** neues System für den unterseeischen Angriff. (Dingler's polytechnisches Journal, Augsburg, Bd. 197, 1870, p. 120-127.) VA

From *Militär-Wochenblatt* for May 11, 1870.

1515. **Neuer Torpedo** von John Ericsson. (Dingler's polytechnisches Journal, Augsburg, Bd. 196, 1870, p. 429-435.) VA

From *Militär-Wochenblatt* for April 23, 1870.

1516. **Submarine warfare.** illus. (Engineering, London, v. 9, 1870, p. 104-105.) VDA

Review of work by J. S. Barnes entitled *Submarine warfare, offensive and defensive*, New York, 1870. Also reviewed in *Van Nostrand's eclectic engineering magazine*, New York, v. 2, 1870, p. 409-412, VDA.

1871

1517. **The Harvey torpedo.** illus. (Engineering, London, v. 11, 1871, p. 35-36.) VDA

Translated in *Dingler's polytechnisches Journal*, Augsburg, Bd. 199, 1871, p. 460-463, VA.

1874

1518. **Holmes, Nathaniel J.** The application of electricity as a means of defence in naval and military warfare. (Society of Telegraph Engineers, Journal, London, v. 3, 1874, p. 32-45.) VGA

Discussion, p. 46-51.

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1519. — **Military torpedo defences.** (Society of Telegraph Engineers, Journal, London, v. 3, 1874, p. 54-60.) VGA

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and the preceding article are abstracted in *Dingler's polytechnisches Journal*, Augsburg, Bd. 215, 1875, p. 259-270, VA.

1520. **Unterwasserfahrten, Höllenmaschinen, &c.** illus. (Das neue Buch der Erfindungen, Gewerbe und Industrien. Leipzig, 1875. 6. ed. 8°. Ergänzungs-Band, p. 357-364.) V

1876

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Lecture delivered at Foochow, China.

1522. **Fluessige Kohlensäure** al Motor. (Dingler's polytechnisches Journal, Augsburg, Bd. 219, 1876, p. 371-372.) VA

On the use of liquid sulphid in torpedoes.

1523. **Submarine gun.** illus. (In: Knight's American mechanical dictionary, New York, 1876, v. 3, p. 2439.) VF

Brief note on experiments made by Saint Cyr in 1797 and Fulton in 1814.

1524. **A Torpedo college** in China. (Telegraphic journal and electrical review, London, v. 4, 1876, p. 282.) VGA

Imperial Torpedo College at Tientsin, Mr. J. A. Betts, director.

1877

1525. **The Eastern war.** Turkish divers removing Russian torpedoes off Poti in the Black sea. illus. (Frank Leslie's illustrated newspaper, New York, v. 44, 1877, p. 407.) *DA

Full-page illustration on p. 408.

1526. **Gakuma, G.** Torpedoes, their history, construction and use. (Frank Leslie's illustrated newspaper, v. 44, 1877, p. 239.) *DA

1527. **Protection** against torpedoes. (The manufacturer and builder, New York, v. 9, 1877, p. 232.) VA

Brief note.

1528. **A Telescope spar** torpedo. (Telegraphic journal and electrical review, London, v. 5, 1877, p. 196.) VGA

Brief note on experiment made at the Woolwich laboratory.

1529. **Torpedoes.** illus. (The manufacturer and builder, New York, v. 9, 1877, p. 181-182.) VA

Historical notes.

1530. **Whitehead** torpedo. (Polytechnic review, Philadelphia, v. 4, 1877, p. 93, 105.) VA

Brief notes.

1879

1531. **Goodrich, Caspar Frederick.** Torpedoes, their disposition and radius of destructive effect. (United States Naval Institute, Proceedings, Annapolis, v. 5, 1879, p. 479-491.) **VXA**

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1881

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Experiments made at Portsmouth in detecting the approach of a torpedo.

1533. **The Ericsson torpedo.** illus. (The manufacturer and builder, New York, v. 13, 1881, p. 35-36.) **VA**

1882

1534. **Donaldson, John.** Torpedo boats. illus. (Engineering, London, v. 34, 1882, p. 355-356, 375-378.) **VDA**

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Paper read before the Mechanical Science Section of the British Association at Southampton, 1882.

1883

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Note on torpedoes.

1536. **Luft-Treibtorpedos.** (Dingler's polytechnisches Journal, Augsburg, Bd. 250, 1883, p. 138.) **VA**

1537. **Neuerungen an den in der Deutschen Marine gebräuchlichen Torpedos.** (Dingler's polytechnisches Journal, Augsburg, Bd. 248, 1883, p. 362-363.) **VA**

1538. **Ueber Neuerungen an Torpedobooten.** (Dingler's polytechnisches Journal, Augsburg, Bd. 247, 1883, p. 56-64.) **VA**

Notes on Bushnell, Fulton, Harvey, Fish, Whitehead, and Nordenfeldt torpedoes.

1884

1539. **Knight, Edward Henry.** Knight's new mechanical dictionary. Boston: Houghton, Mifflin and Co., 1884. viii, 960 p., 56 pl. illus. 4°. **VF**

Torpedoes, p. 897-899.

1540. **New torpedo boats.** (Telegraphic journal and electrical review, London, v. 15, 1884, p. 176.) **VGA**

Notes on John Ericsson's boat and Professor Tuck's electric submarine torpedo boat.

1541. **Scheel's Controlsteuer für Fischtorpedos.** illus. (Dingler's polytechnisches Journal, Augsburg, Bd. 251, 1884, p. 27-28.) **VA**

1542. **Th. Nordenfeldt's Kartätschgeschütz.** (Dingler's polytechnisches Journal, Augsburg, Bd. 254, 1884, p. 429-432.) **VA**

1885

1543. **Canet's Geschütz zum Schleudern von Fischtorpedos.** illus. (Dingler's polytechnisches Journal, Augsburg, Bd. 255, 1885, p. 21-23.) **VA**

1544. **A New torpedo guide.** (Telegraphic journal and electrical review, London, v. 16, 1885, p. 360.) **VGA**

Brief description of new method of controlling torpedoes.

1545. **Paulson's self propelling and steering torpedo.** illus. (Telegraphic journal and electrical review, London, v. 16, 1885, p. 213-215.) **VGA**

Invention of Richard Paulson.

1886

1546. **Boyd, Robert.** Report of torpedo attack and defenses of U. S. S. "Tennessee." (United States Naval Institute, Proceedings, Annapolis, v. 13, 1887, p. 266-268.) **VXA**

Experiments made in September, 1886.

1547. **Torpedoes.** (In: United States.—Office of Naval Intelligence, General information series no. 5, Washington, 1886, p. 246-254.) **VYEB**

Notes on the Whitehead, Howell, Sims-Edison, Patrick, Paulson, and Berdan torpedoes, on torpedo nets and on the torpedo experiments at Cherbourg.

1548. **Torpedoes electrically steered.** (Telegraphic journal and electrical review, London, v. 18, 1886, p. 237.) **VGA**

Brief note on invention of Thomas A. Edison.

1549. **Value of torpedoes.** (Telegraphic journal and electrical review, London, v. 19, 1886, p. 79.) **VGA**

Notes on the Whitehead torpedo and experiments made in Fareham creek.

1887

1550. **Dynamite in war, the pneumatic torpedo gun.** illus. (Manufacturer and builder, New York, v. 19, 1887, p. 128-129, 158-159, 182-184.) **VA**

Notes on the Lay, Patrick, and Sims torpedoes.

1887, *continued*.

1551. Kesselheizung mit flüssigen Kohlenwasserstoffen. (Dingler's polytechnisches Journal, Augsburg, Bd. 266, 1887, p. 202-208.) **VA**

1552. The Lay torpedo. (Telegraphic journal and electrical review, London, v. 20, 1887, p. 211, 217-218.) **VGA**

Notes on experiments.

1553. Ein Neuer Torpedo. (Mittheilungen aus dem Gebiete des Seewesens, Pola, Bd. 15, 1887, p. 390.) **VXA**

From the *United service gazette*. Reprinted in *Dingler's polytechnisches Journal*, Stuttgart, Bd. 267, 1888, p. 142, *VA*.

Notes on the torpedo invented by Edward C. Peck.

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1888

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[v. 1.] Text. **VWS** and † **VWS**
[v. 2.] Atlas.

1558. Neuerungen im Schiffswesen. (Dingler's polytechnisches Journal, Augsburg, Bd. 270, 1888, p. 481-491, 540-551.) **VA**

Notes on torpedoes, p. 481, 488.

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1889

1562. King, William R. Annual report, Willets Point, N. Y., Engineer School of Application. pl. (In: United States. — Engineer Department. Annual report of the chief of engineers, Washington, 1889, part 1, p. 467-502.) **VDDA**

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1563. Neues im Schiffswesen. (Dingler's polytechnisches Journal, Stuttgart, Bd. 272, p. 529-539.) **VA**

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Notes on torpedoes.

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1901

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1906

1601. Die Bedeutung des Torpedos und Mittel zur Erhöhung seiner motorischen Leistungsfähigkeit. (Dingler's polytechnisches Journal, Berlin, Bd. 321, 1906, p. 535-537.) VA

1602. Hudson Maxim. port. (In: National cyclopaedia of American biography, New York, v. 13, 1906, p. 520-521.) * R - AGZ

Inventor of an automobile torpedo.

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1604. Lalande, L. L'engin porte-torpilles sous-marin. (Bulletin technologique, Paris, année 1906, v. 2, p. 812-853.) VA

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PBK

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*EC

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VA

First practical application made by Obry in the steering of a torpedo, p. 448.

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VFA

Application to torpedoes, p. 636-637.

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†VDS

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VYL

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VFA

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VGA

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Notes on use in torpedoes.

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VFA

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VDA

Invention of John Gardner. Notes on application to torpedoes.

1627. German warship in torpedo practice. illus. (Popular mechanics magazine, New York, v. 21, 1914, p. 729.)

VFA

Illustration of discharge of torpedo.

1628. Grenade that is fired from a rifle. illus. (Popular mechanics magazine, New York, v. 21, 1914, p. 684-685.)

VFA

1629. The Menace of the mine; how these death-dealing weapons are laid and how they may be removed. illus. (Navy and army illustrated, London, new series, v. 1, 1914, p. 14-16.)

†VWZH

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VWA

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†VWZH

1634. The Torpedo in war. illus. (Navy and army illustrated, London, new series, v. 1, 1914, p. 65-68.)

†VWZH

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1635. Torpedo nets. (Shipbuilding and shipping record, London, v. 3, 1914, p. 410.)

†VXH

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†VWZH

1638. Aubigny, P. d'. Un nouvel explosif de guerre, la thermite. (La Revue, Paris, 1915, v. 111, p. 528-531.)

*DM

Invention of John Hays Hammond, jr. Data on incendiary shell generating prussic acid gas.

1639. B., M. Eine behelfsmässig hergestellte Handgranat- (Handgranat-schleuder). (Kriegstechnische Zeitschrift, Berlin, Jahrg. 17, 1914, p. 29-32.)

VWA

1915, continued.

1640. **Bennett, Arnold.** In the fire-trenches. illus. (Illustrated London news, London, 1915, v. 147, p. 258-259.) *DA

Illustration of a bomb mortar, p. 259.

1641. **Les Bombes incendiaires employées par les dirigeables et les avions allemands.** illus. (*Génie civil*, Paris, tome 67, 1915, p. 11.) VA

1642. **Bradwood, W.** War missiles, ancient and otherwise. (*The Field*, London, v. 125, 1915, p. 525-527.) †VPA

A very complete article; gives history of the Greek fire and the use of petroleum in inflammable missiles.

1643. **British bomb-throwers in action at La Bassée.** illus. (Illustrated London news, v. 146, 1915, p. 490-491.) *DA

1644. **The Business end of a submarine.** illus. (Navy and army, London, new series, v. 4, 1915, p. 108-109.) †VWZH

Illustration of the breech blocks of a Holland submarine, showing four torpedo tubes arranged in pairs on each side of the central hand wheel.

1645. **C., J.** Air-torpedoes and air-mines, and the weapons that fire them. illus. (Illustrated London news, London, v. 147, 1915, p. 309.) *DA

Illustration of the firing of an air-mine weighing 236 pounds.

1646. — **French trench guns: crapouillot; taupia; and arbalist.** illus. (Illustrated London news, London, v. 147, 1915, p. 308.) *DA

Fine illustrations showing use of these guns.

1647. **Cossman, Edward C.** Hand grenades. illus. (*Scientific American*, New York, 1915, v. 112, p. 427.) VA

1648. **Fire warnings: how to deal with bombs.** (Illustrated carpenter and builder, London, v. 77, 1915, p. 346.) †3-VEA

1649. **Flamel, Nicolas.** Les torpilles aériennes. illus. (*La nature*, Paris, année 43, semestre 2, 1915, p. 263-266.) OA

Gives valuable historical notes on the bomb and several cuts of trench cannon.

1650. **The Force of the torpedo of the kind which sunk the "Lusitania."** illus. (Illustrated London news, London, v. 146, 1915, p. 613.) *DA

Illustration of damage done a ship by the explosion of a torpedo.

1651. **German flame-projectors in use; French testing "Flammenwerfer" captured from the enemy.** (Illustrated London news, London, v. 147, 1915, p. 330-331.) *DA

1652. **German incendiary bombs.** illus. (*Applied science*, Toronto, v. 27 [new series, v. 10], 1915, p. 50-51.) VA

1653. **German Zeppelin raids over Great Britain.** (*Sphere*, London, v. 62, 1915, p. 296-297, 334.) *DA

1654. **Die Gewehr- und Handgranate der indischen Armee.** illus. (*Kriegstechnische Zeitschrift*, Berlin, Jahrg. 18, 1915, p. 88-89.) VWA

1655. **The Grasshopper and the torpedo of the air.** illus. (Illustrated London news, London, v. 147, 1915, p. 144-145.) *DA

Illustration of crossbow for hurling bombs, etc., also the torpedo shell.

1656. **The Greatest war.** By Colonel "X." illus. (Navy and army, London, new series, v. 4, p. 158-161.) †VWZH

Part I. The war on land.

Gives illustrations of a German poisonous gas bomb mortar and French soldiers hurling grenades at the German trenches.

1657. **Guenther, Hanns.** Handgranaten. illus. (*Schweizerische militärische Blätter: Schweizerische Monatschrift für Offiziere aller Waffen*, Frauenfeld, Jahrg. 27, 1915, p. 192-196, 234-240.) VWA

1658. **The "Gulflight" case.** illus. (*Literary digest*, New York, v. 50, 1915, p. 1135.) *DA

Valuable notes on the torpedoing of this ship.

1659. **Hand grenade.** illus. (*Engineer*, London, v. 120, 1915, p. 566.) VA

Reprinted in *Génie civil*, Paris, tome 68, 1916, p. 141, VA.

Description of English patent issued Nov. 17, 1915, to F. E. Baker.

1660. **Illustration of bomb used by the Allies' airmen at Gallipoli.** (Illustrated London news, London, v. 147, 1915, p. 685.) *DA

1661. **Lake, Simon.** Submarines that are strictly invisible; a type that can pass through a mine field and attack a blockaded fleet. illus. (*Scientific American*, New York, v. 112, 1915, p. 68-69, 74-75.) VA

Abstracted in *Illustrated London news*, v. 146, 1915, p. 210-211, *DA, under title: A wheeled submarine designed to motor through mine fields, lay mines, and enter defended harbors.

1662. **The Leon torpedo.** (*Royal Society of Arts, Journal*, London, v. 63, 1915, p. 1031-1032.) VA

Invention of Carl Leon, a Swedish officer.

1663. **Lewes, Vivian B.** Modern munitions of war: poison gases and incendiary bombs. (*Royal Society of Arts, Journal*, London, v. 63, 1915, p. 827-831.) VA

Abstracted in *Engineer*, London, v. 120, 1915, p. 82-83, VA; *Nature*, London, v. 95, 1915, p. 608-609, OA; and in *Illustrated London news*, London, v. 147, 1915, p. 140, *DA.

1664. — **Modern munitions of war: shells and high explosives.** (*Royal Society of Arts, Journal*, London, v. 63, 1915, p. 823-827.) VA

Abstracted in *Illustrated London news*, London, v. 147, 1915, p. 108, 98, *DA.

Valuable notes on bombs and grenades. The second of the Fothergill lectures for 1915.

1665. **The "Lusitania" torpedoed.** illus. (*Literary digest*, New York, v. 50, 1915, p. 1133-1134.) *DA

1915, continued.

1666. M., A. W. Mine-sweeping in the North sea. illus. (The Field, London, v. 125, 1915, p. 90.) †VPA

Describes methods used.

1667. A Master of the torpedo. illus. (Navy and army, London, new series, v. 3, 1915, p. 367-370.) †VWZH

Notes on the work of Sir Arthur Knivet Wilson, popularly known as "Tug Wilson," former commander of H. M. S. *Vernon*, the torpedo school at Portsmouth, Eng.

1668. Metallographische Untersuchung einiger Granatsplitter. illus. (Stahl und Eisen, Düsseldorf, Jahrg. 35, 1915, p. 170-171.) VIA

1669. Mills, W. The Mills grenade. illus. (Arms and explosives, London, v. 23, 1915, p. 154.) †VOG

1670. The Mine war in the trenches: explosion and crater. illus. (Illustrated London news, London, v. 60, 1915, p. 699.) *DA

Another illustration, p. 719.

1671. Modernizing the hand-grenade. illus. (Literary digest, New York, v. 50, 1915, p. 1015-1016.) *DA

Compiled from *Technical world magazine*, April, 1915.

1672. Munitions of the present war. (Railway review, Chicago, v. 57, 1915, p. 373-376.) †TPB

Poisonous gases and incendiary bombs, p. 375-376.

1673. Newton, W. Douglas. The bomber, a psychological study. (Illustrated London news, London, v. 147, 1915, p. 632.) *DA

View of Germans throwing hand grenades from trenches.

1674. Oelker. Tabellarische Zusammenstellung in- und ausländischer Patente, betreffend Hand- und Gewehrgranaten und dgl. (Zeitschrift für das gesamte Schiess- und Sprengstoffwesen, München, Jahrg. 10, 1915, p. 87-89, 99-100, 112-113.) VOA

1675. Pollen, A. H. The "L. S. D." of the submarine blockade. illus. (Illustrated London news, London, v. 146, 1915, p. 374.) *DA

Illustration and description of the "Daylight torpedo-boat," a small automatic submarine torpedo.

1676. Polster. Hand- und Gewehrgranaten. illus. (Verein deutscher Ingenieure, Zeitschrift, Berlin, Bd. 59, 1915, p. 447-448.) VDA

1677. — Minen- und Bombenwerfer Frankreichs. illus. (Kriegstechnische Zeitschrift, Berlin, Jahrg. 18, 1915, p. 153-157.) VWA

1678. Precautions against incendiary bombs. illus. (Oil and colour trades journal, London, v. 47, 1915, p. 1948.) VOP

1679. Protection of battleships from submarine attack. illus. (Illustrated London news, London, v. 146, 1915, p. 34, 53.) *DA

1680. The Recrudescence of siege warfare. (Illustrated London news, London, v. 146, 1915, p. 204.) *DA

Descriptions of various types of the German Minnenwerfer.

1681. The Revival of the hand-grenade in trench warfare: types and methods, French, British, and German. illus. (Illustrated London news, London, v. 146, 1915, p. 790-791.) *DA

1682. Savorgnan di Brazzà, Francesco. Attacchi e battaglie aeree. (In his: La guerra nel cielo. Milano, 1915. 4°. p. 198-226.) VDY

1683. Sinker of the "Bouvet," "Irresistible" and "Ocean." illus. (Illustrated London news, London, v. 146, 1915, p. 461.) *DA

Illustrations and description of the Leon torpedo-mine, invented by Capt. Karl Oskar Leon.

1684. Sinking of the "Lusitania." illus. (Illustrated London news, London, v. 146, 1915, p. 630-636.) *DA

Valuable series of photographs and sketches.

1685. Sunk by an enemy's torpedo: a steamer going down. illus. (Illustrated London news, London, v. 147, 1915, p. 260-261.) *DA

Account of the sinking of the *Carthage* and *Arabic*.

1686. Thomas, Tom R. Gyroscopic applications, with demonstrations. (Liverpool Engineering Society, Transactions, Liverpool, v. 36, 1915, p. 99-118.) VDA

Discussion, p. 120-124.

The steering of torpedoes, p. 110-112.

1687. Throwing grenade bouquets to the enemy. (Literary digest, New York, v. 50, 1915, p. 1026-1028.) *DA

1688. Torpedoes and torpedo craft, the development of a formidable naval arm. illus. (Navy and army, London, new series, v. 3, 1915, p. 100-102.) †VWZH

1689. "The Unworthy method of making war"; German poison gas. illus. (Illustrated London news, London, v. 147, 1915, p. 77.) *DA

1690. "Weeping" gas; poison gas and other enemy devices; trench warfare trophies. illus. (Illustrated London news, London, v. 147, 1915, n. 660-661.) *DA

Interesting series of illustrations.

1691. What to do in the case of further air or sea raids. illus. (Sphere, London, v. 60, 1915, p. 162.) *DA

1692. Zeppelin visit to London. illus. (Sphere, London, v. 61, 1915, p. 228-229, 232.) *DA

1916

1693. **Aerial torpedo** is built by western inventor. illus. (Popular mechanics magazine, New York, v. 26, 1916, p. 207.) **VFA**

1694. **Aerial torpedo of great power.** illus. (Popular mechanics magazine, New York, v. 25, 1916, p. 25.) **VFA**

Wirelessly controlled.

1695. **Automobile torpedo control.** (Army and navy register, Washington, v. 60, 1916, p. 9, 73.) **† VWA**

Invention of John Hays Hammond, jr. Brief note on proposed congressional legislation. For an account of test see p. 316.

1696. **Buttner, Alexander.** Throwing bombs from airships. How to aim the projectile to hit a given object. illus. (Scientific American supplement, New York, v. 81, 1916, p. 85.) **VA**

Translated from *Die Umschau*. With a historical note on the attempt at the siege of Venice in 1849 to drop bombs from an unguided balloon.

1697. **Dodge, William W.** Liquid fire and asphyxiating gases. (Army and navy register, Washington, v. 60, 1916, p. 8.) **† VWA**

Gives history of the use of Greek fire.

1698. **Dropping aerial bombs thru a cone of light.** (Electrical experimenter, New York, v. 4, 1916, p. 86.) **VGA**

1699. **Du Verseau, pseud.** Un sous-marin allemand poseur de mines pêché par les Anglais. illus. (*La nature*, Paris, année 44, semestre 2, 1916, p. 169-172.) **OA**

1700. **Eliphalet Bliss.** (National cyclopaedia of American biography, New York, v. 15, 1916, p. 20.) *** R - AGZ**

Manufacturer of the Bliss-Leavitt torpedo.

1701. **Fauntleroy, A. M.** Grenades. (United States naval medical bulletin, Washington, v. 10, 1916, p. 46-48.) **WSR**

1702. **Fighting with liquid fire.** (Literary digest, New York, v. 52, 1916, p. 924-925.) *** DA**

Gives description of the effect of the "Flammenwerfer." Refers to the story by H. G. Wells giving "nightmarish" story of the Martians attacking England, which has become a fact.

1703. **The Finned bomb of trench warfare:** makers of air-torpedoes. illus. (Illustrated London news, London, v. 148, 1916, p. 404-406.) *** DA**

1704. **Firing a torpedo from the deck of an American destroyer and loading a torpedo on the submarine "G-2."** illus. (Popular mechanics magazine, New York, v. 25, 1916, p. 90-91.) **VFA**

Interesting illustrations.

1705. **Frank McDowell.** (National cyclopaedia of American biography, New York, v. 15, 1916, p. 20-21.) *** R - AGZ**

Notes on the Bliss-Leavitt torpedo.

1706. **The Greek fire of the Germans.** (Illustrated London news, London, v. 149, 1916, p. 168.) *** DA**

Notes on history.

1707. **Grenades, rifle and hand.** illus. (Scientific American supplement, New York, v. 81, 1916, p. 84.) **VA**

Illustrations of various grenades used at the front.

1708. **Guns and flame projectors: battle spoil on the Somme front.** illus. (Illustrated London news, London, v. 149, 1916, p. 795.) *** DA**

Description of a German Flammenwerfer.

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